

Certificate of Analysis

Product Name: Bexarotene

Catalog No.: 5819

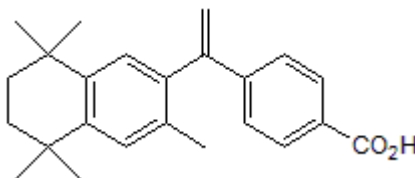
Batch No.: 1

CAS Number: 153559-49-0

IUPAC Name: 4-[1-(5,6,7,8-Tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]benzoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₂₈O₂
Batch Molecular Weight: 348.48
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 20 mM with gentle warming
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	82.72	8.1	
Found	82.48	8.05	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent and selective RXR agonist (EC₅₀ values are 24, 25 and 33 nM for RXRβ, RXRγ and RXRα, respectively). Exhibits >300-fold selectivity for RXR over RAR receptors. Inhibits tumor cell invasion and migration in vitro, and inhibits metastasis and angiogenesis in mouse models. Also promotes brown adipogenic differentiation and induces brown adipogenic reprogramming from myoblasts.

Physical and Chemical Properties:

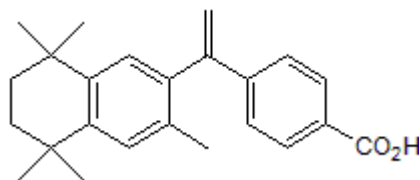
Batch Molecular Formula: C₂₄H₂₈O₂

Batch Molecular Weight: 348.48

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 20 mM with gentle warming

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Nie et al (2017) Brown adipogenic reprogramming induced by a small molecule. *Cell Rep.* **18** 624. PMID: 28099842.

Yen et al (2006) A selective retinoid X receptor agonist bexarotene (LGD1069, Targretin) inhibits angiogenesis and metastasis in solid tumours. *Br.J.Cancer* **94** 654. PMID: 16495926.

Boehm et al (1994) Synthesis and structure-activity relationships of novel retinoid X receptor-selective retinoids. *J.Med.Chem.* **37** 2930. PMID: 8071941.

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